

Claims.

- 1). A bead trimmer with a tool extraction system, preferably used in a production line of elements bearing longitudinal weld beads (21) in which an element slides along a direction which is parallel to a longitudinal axis (x) thereof, wherein it comprises a tool-bearing turret (2) for removably fixing a bead-trimmer tool (30),  
5 which turret (2) is supported by means for translating the turret (2) on command according to at least one vertical direction (z) and at least one horizontal direction (y) which horizontal direction (y) is transversal with respect to the longitudinal axis (x) between an internal working position and an external tool-changing position, with a run which is sufficient to extract the turret (2) from a working  
10 zone thereof.
- 2). The bead trimmer of claim 1, wherein the means for translating comprise a first slide (3), to which the turret (2) is associated; the first slide (3) being slidable along a horizontal direction (y) between the internal working position, in which the tool (30) is aligned with the weld bead (21) and the external tool-changing position, in which the tool (30) is not aligned with the weld bead (21), the first  
15 slide (3) being associated to the intermediate slide (34) which is associated to a second slide (4) which is vertically slidable on a bearing structure (40) along the vertical direction (z) between a lower position, in which the tool (30) is in contact with the weld bead (21) and a raised position, in which the tool (30) is distanced  
20 from the weld bead (21), the intermediate slide (34) being mobile along the horizontal direction (y) with respect to the second slide (4) in order to enable a correct centring of the tool (30) with respect to the weld bead (21).
- 3). The bead trimmer of claim 1, wherein the first slide (3) comprises an elongate portion of guide (5), vertically gripped between at least three wheels (6), axes of

rotation of which wheels (6) are parallel to the longitudinal axis (x), the at least three wheels (6) being associated to the intermediate slide (34) and being conformed in such a way as to prevent the intermediate slide (34) from displacing along the horizontal direction (y) and along the vertical direction (z), the first

5 slide (3) being translatable along the horizontal direction (y) by means of a first actuator cylinder (7) which exhibits a stem connected to the first slide (3) and a body connected to the intermediate slide (34).

10 4). The bead trimmer of claim 2, wherein the wheels (6) are mounted on supports having elastic means predisposed to enable the wheels (6) to move along a rotation axis thereof.

15 5). The bead trimmer of claim 1, wherein the second slide (4) is vertically slidable between two parallel guides (8) by means of a second actuator cylinder (9) operatively arranged between the second slide (4) and a vertical calibration mechanism (15) which is operatively arranged between the second actuator cylinder (9) and a portion of the bearing structure (40).

6). The bead trimmer of claim 1, wherein the intermediate slide (34) is mobile along the horizontal direction (y) with respect to the second slide (4) by means of a calibration mechanism (16) which enables a correct centring of the tool (30) with respect to the weld bead (21).

20 7). The bead trimmer of claim 1, wherein the first slide (3) is blockable with respect to the intermediate slide (34) when the first slide (3) is in a internal position, by means of a blocking device (11) comprising a blocking and unblocking cylinder (12) arranged between the intermediate slide (34) and the first slide (3), a stem of which cylinder (12) exhibits a flange (17) predisposed to operate internally of a T-shaped hollow afforded on the first slide (3), the blocking and unblocking cylinder (12) being predisposed in a rest position thereof to exert a traction force, by means of elastic means, on the first slide (3)

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and to pull the first guide into contact with the intermediate slide (34), and, when activated, to exert a force which is opposed to the force exerted by the elastic means and to free the first slide (3) from contact with the intermediate slide (34).  
8). The bead trimmer of claim 6, wherein the blocking and unblocking cylinder  
5 (12) operates in collaboration with a horizontal sliding guide (13) associated to the intermediate slide (34), which sliding guide (13) exhibits, in transversal section, a wedge shape and which is predisposed to insert in a channel shaped accordingly thereto and afforded on the first slide (3), when the blocking and unblocking cylinder (12) is in a rest position thereof, the sliding guide (13) being  
10 conformed and predisposed to define a reference with respect to a vertical direction for the turret (2).